

SNAJD, V., prof.; ANTOS, J.; LUKAS, V.; BOUDA, J.; BARDOS, A.; MANKA, J.;
HAJEK, A.; PACIN, Z.; SKACEL, K.; STIKSA, E.; SIKL, O.; SKODA, V.

Clinical aspects of carcinoma of the endometrium. Cesk. gynek. 27
no.3:173-177 Ap '62.

1. I gyn. klin. fak. vseob. lek. KU v Praze, prednosta prof. MUDr.
K. Klaus.

(UTERUS NEOPLASMS)

LUKAS, V.A., inzh.

Structure and regularities of the comminution process as
the objective of automatic control. Izv. vys. ucheb. zav.;
gor. zhur. 6 no.10:116-120 '63. (MIRA 17:2)

1. Sverdlovskiy gornyy institut imeni V.V. Vakhrusheva.

KOZIN, V.Z., inzh.; LUKAS, V.A., inzh.

Description and experimental determination of the dynamic properties of some objects of control in preparation plants. Izv.vys.uceb.zav.gor. zhur. 7 no.6:114-117 '64. (MIRA 17012)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhreshava. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov.

KOZIN, V.Z., inzh.; LUKAS, V.A., inzh.

Principal dynamic regularities of the flotation process as
an object of automatic control. Izv. vys. ucheb. zav.; gor.
zhur. 7 no.3:164-170 '64 (MIRA 17:8)

1. Sverdlovskiy gornyy institut imeni Vakhrusheva. Rekomendo-
vana kafedroy avtomatizatsii proizvodstvennykh protsessov.

LUKAS, V.A., inzh.; KOZIN, V.Z., kand.tekhn.nauk

Simplified method of calculating equivalent lagging in ore dressing flow sheets. Izv.vys.ucheb.zav.; gor.zhur. 8 no.11:158-161 '65.

(MIRA 19:1)

1. Sverdlovskiy gornyy institut imeni Vakhrusheva. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov. Submitted January 26, 1965.

LUKAS, VILMOS, dr.

KERPEL, Marta, dr.; LUKAS, Vilmos, dr.

Kartagener triad. Orv. hetil. 98 no.10-11:264-267 17 Mar 57.

1. A Budapesti Orvostudományi Egyetem Sebesztovábbképző
klinikájának (mb. vezető: Temesvári, Antal, dr.) Röntgen
osztályának (főorvos: Jóna, István, dr.) és a Szövetseg
utcai Kórház-Rendelőintézet (igazgató: Fekete, Sándor, dr.)
Röntgen osztályának (főorvos: Megay, László, dr.) közleménye.
(KARTAGENER TRIAD, case reports
(Hun))

ANTOS, Jaroslav; LUKAS, Vladimir

Case finding in cancer of the corpus uteri. Sborn. ved. prac. lek.
fak. Karlov. univ. (Hrad Kral) 4 no.5:635-643 '61.

1. Gynekologicko-porodnicka klinika; prednosta prof. SrSc. MUDr.
J. Pazourek.

(UTERINE NEOPLASMS)

LUKAS, Zdenek

On the problem of innervation of the ciliary body. Scr. med.
fac. med. Brunensis 36 no.4:161-168 '63.

1. Katedra histologie a embryologie lekarske fakulty UJEP v
Brne Vedouci: Doc. MUDr. Karel Mazanec, Dr.Sc.
(CILIARY BODY) (MONKEYS) (CATTLE)
(SWINE) (RATS) (NERVOUS SYSTEM)
(NERVE ENDINGS)

LUKASE, J., Projev prof., MUDr.

Activities of the Scientific Council of the Ministry of Health,
activities of scientific institutes and achieved results. Cas.
lek. cesk. 95 no.1:1-8 6 Jan 56.

1. Uradujiciho mistopredsedy vedecke rady ministerstva zdravotnictvi
pri zahajeni plenarniho zasedani vedecke rady dne 14. listopadu 1955.
(PUBLIC HEALTH,
in Czech.)

LUKASEK, I.

Selection of instructors and jump masters. p. 252.

Vol. 2, no. 11, May 1953
KRIDLA VLASTI
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

LUKASEK, I.

"Movements of the Paratrooper in the Air Before the Parachute Opens",
P. 472, (KRIDLA VLASTI, Vol. 4, No. 20, Sept. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

LUKASEK, I.

Equipment for jumping from high altitudes. p.224.
KRIDLIA VLASTE, Prague, No. 10, May 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

LUKASEK, J.

Penetration and its use in practice, p. 258, ZVARANIE, (Ministerstvo
hutneho prumyslu a rudnych bani a Ministerstvo strojarstvo) Baratislava,
Vol. 3, No. 8/9, Sept. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1956

Lukáček, J.

✓ 2795* Introduction to Automatic Welding Under Flux. Zavedení automatického svařování pod tavivkem. (Czech.) J. Lukáček. (Czech.) Strojírenská výroba, v. 3, no. 10, Oct. 1955, p. 383-401.

Comparison of various operational techniques; types of welds possible; descriptions of automatic welding machines used. Photographs, tables, diagrams.

df

LUKASEK, J.; CERNY, A.

Some cases of welding under flux in the agricultural machinery industry. p. 159.
(Zvaranie, Vol. 4, no. 5, May 1955, Praha.)

SO: Monthly List of East European Accession, (FEAL), LC, Vol. 4,
No. 11, Nov. 1955, Uncl.

LUKASEK, JAROMIR

5568* The Influence of Granulation of Flux Z41 on the Geometrical Size and Quality of Welds. Vliv zrnení travičků Z41 na rozměry a jakost svarů. (Czech.) Zdeněk Duben and Jaromír Lukášek. Zdravotní, v. 4, nos. 9-10, Sept. 1955, p. 281-287.

Owing to its high Mn content, the flux is suitable for welding most low-C and some alloy steels. Three grades of flux are recommended, according to grain size. Tables, graphs, diagrams, photographs. 2 ref.

MG ①

2/ 2/

Lukásek, Jaromír

44919* Chinese Information About Several New Apparatuses
for Submerged Arc Welding. Stručné informace o některých
nových zařízeních pro svařování pod tavidlem. (Czech.)
Jaromír Lukásek. Zvarování, v. 5, no. 2, Feb. 1950, p. 116-121.
Devices and machines for flux welding pipes to boilers. Manner
of operation and types of motors used. Carbon-arc welding ma-
chine. Photographs.

mut 1/

2/

LUKASEF, J. ; TUREK, A.

Automatic welding of boiler staybolts under flux. p. 48.

ZELEZNICHI DOPRAVA A TECHNIKA. (Ministerstvo dopravy) Praha, Czechoslovakia.
Vol. 7, no. 2, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,
November 1959.

Uncl.

LUKASEK, J.

Regulating ratio of base to electrode metal in welds produced by flex welding. p. 126

STROJIRENSTVI (Ministerstvo tezeho strojirenstvi, ministerstvo presneho strojirenstvi
Ministerstvo automobilovoho prumyslu a zemedelskych stroju)
Praha, Czechoslovakia
Vol. 9, no. 2, Feb. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 3, no. 7.
July 1959
Uncl.

25(1)

SOV/125-59-12-1/18

AUTHORS: Lukášek , Jaromir and Löbl , Karel

TITLE: A Method of Automatic Arc Surfacing of High-Alloyed Steels and Alloys Under Flux

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 12, pp 3-12 (USSR)

ABSTRACT: The article gives information on a new welding method, in which an additional fusing wire electrode is connected in parallel with the work. Other existing methods are discussed (Ref. 1-9), and the advantages of the new one indicated. The method solves the problem of controlling the quantity of base metal in the weld layer without impairing the dependability of the joint. It doubles the quantity of weld metal per hour, and correspondingly reduces the consumption of electric current. The four metals used in the experiments were: steels "084", "080", Czechoslovakian cobalt alloys "Real' 095" and "Real' 096" (chemical composition given in table 1) which are employed for the sealing surfaces of boiler valves and fittings in the chemical industry. The experiments are described, and the recom-

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SOV/125-59-12-1/18

A Method of Automatic Arc Surfacing of High-Alloyed Steels and Alloys
Under Flux

mended welding process parameters are included (table 2), i.e. the electrode diameter, current amperage and voltage, welding speed and feed, and for "Real" alloys the pre-heating temperature. There are 7 diagrams, 5 photographs, 2 tables and 11 references, 5 of which are Soviet, 3 Czech, and 3 English.

ASSOCIATIONS: State Scientific-Research Institute of Materials and Technology, Prague; Scientific-Research Institute of Welding Machines and Welding Technology, Chotěboř.

SUBMITTED: June 8, 1959.

Card 2/2

LUKASEK, R.; MASTNER, J.

"Morton Nadler's Electronic Oscillograph; a book review." p. 350

SDELUVACI TECHNIKA. Praha, Czechoslovakia, Vol. 3, No. 11, Nov., 1955

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September, 1959
Unclas

LUKASEK, R.; SMOLA, J.; SILAR, J.

Alpha scintillating sound with a large surface. p. 124

JADERNA ENERGIE. (Ministerstvo energetiky) Praha, Czechoslovakia, Vol. 5, No. 4,
Apr. 1959

Monthly List of East European Accessions (EEAI), LV, Vol. 8, No. 7, July 1959
Uncl.

LUKASEVIC, M.K. [Lukashevich, M.K.]

Use of mathematical statistics in the research and structural design of automatic production lines. Strojirenstvi 13 no.8: 608-612 Ag. '63.

1. Eksperimental'nyy nauchno-issledovatel'skiy institut metallo-rezhushchikh stankov.

LUKASEVICH, I.T. [Lukasevych, I.T.]

Microscopic study of the grass of *Lithospermum*
officinale L. *Farmatsev.zhur.* 20 no.6:47-52 '65.
(MIRA 19:1)

1. Kafedra farmakognozii L'vovskogo meditsinskogo instituta.

24.7400
24.7700

67025
SOV/137-59-10-22149

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 10, p 125 (USSR)

AUTHORS: Smolyanskiy, R.Ye., Lukasevich, M.I., Gurevich, V.M.

TITLE: The Importance of Treating Germanium Surfaces Prior to Obtaining Alloying Indium-Germanium p-n-Transition λ

PERIODICAL: Tyazh. prom-st' Podmoskov'ya (Mosk. obl. sovnarkhoz), 1958, Nr 8, pp 11-17

ABSTRACT: It was found out by electronographical and metallographical analyses that the layer with a distorted crystalline lattice on the Ge surface after mechanical treatment (cutting, polishing) was $60 - 90 \mu$. The optimum proportion of components in the etching agent H_2O_2 : NaOH was found which ensures maximum effect of Ge solution: $9 - 10 \text{ cm}^3$ (25%) NaOH per 1 liter (30%) H_2O_2 . It was stated that the Ge layer, distorted due to mechanical treatment, was fully eliminated by triple etching with the indicated agent. Oxalate agent is recommended for Ge as most efficient. The author stated that one of the causes of short-circuit p-n-transitions in welding-in In λ

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67025

SOV/137-59-10-22149

The Importance of Treating Germanium Surfaces Prior to Obtaining Alloying Indium-Germanium p-n-Transition

into Ge was the formation of "blank spots", i.e. areas where fusion of In and Ge did not take place. The author supposes that the formation of such "blank spots" can be explained by insufficient preliminary treatment of Ge surface, prior to welding-in. *4*

E.T.

Card 2/2

24(6)

SOV/57-28-10-6/40

AUTHORS: Smolyanskiy, R. Ye., Gurevich, V. M., Raykhlin, A. M.,
Lukasevich, M. I.

TITLE: Investigation of the Industrial Etching of the Surface of Mono-crystalline Germanium Previous to Fusing With Indium
(Issledovaniye promyshlennogo travleniya poverkhnosti mono-kristallicheskogo germaniya pered vplavleniyem v nego indiya)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, Vol 28, Nr 10, pp 2135-2141 (USSR)

ABSTRACT: This is an investigation of the industrial etching of germanium after cutting and polishing. It was carried out by means of electron diffraction analyses (as suggested by the authors of reference 1) and by means of micrographs: The results are as follows: 1) It is possible to advance an eventual mechanism of the etching of germanium in an alkaline agent, for which an optimum composition is given: $8 \div 10 \text{ cm}^3$ 25% NaOH per 1000 cm^3 30% H_2O_2 . 2) It was found that a film of GeO_2 remains on the germanium surface after etching in an alkaline agent, which does not dissolve. It is, however, easily removable by rinsing the etched germanium in hot distilled water. 3) In order to in-

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SOV/57-25-10-6/40

Investigation of the Industrial Etching of the Surface of Monocrystalline Germanium Previous to Fusing With Indium

crease the efficiency of the etching process it is recommended to rinse the germanium samples between subsequent etching treatments. 4) When germanium is sawed through with steel saw blades a disturbed layer results with a thickness of 90μ . 5) Considerations are presented bearing on the difference in the absorption capability of germanium surfaces etched with alkaline agents and of such etched with adhesive agents. A treatment with the latter results in an increase of the probability of a physical sorption of gases. The existence of ions promotes the sorption of moisture. 6) Recommendations are presented concerning the choice and the uniformity of etching processes of the source germanium and of the finished p-n junctions with respect to the type of apparatus which is to incorporate the transistors.

The electron diffraction unit of the Institut kristallografii AN SSSR (Institute of Crystallography AS USSR) in the laboratory of Professor Z. G. Pinsker was used for the electron diffraction analyses. There are 10 figures, 1 table, and 5 references, 4 of which are Soviet.

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SOV/57-28-10-6-40

Investigation of the Industrial Etching of the Surface of Monocrystalline Germanium Previous to Fusing with Indium

SUBMITTED: December 17, 1957

Card 5/3

LUKASEVICH, R.; GROMOV, A.

General technical training of rural youth. Voen. znaz. 36 no.9:6-7
S '60. (MIRA 13:9)

1. Sekretar' Kliyskogo raykoma Leninskogo kommunisticheskogo soyuza
molodeshi Ukrainy. (Technical education)

LUKASEZEWICZ, K,

The crystal structure of strontium titanates α - $2\text{SrO} \cdot \text{TiO}_2$ and $3\text{SrO} \cdot 2\text{TiO}_2$. p. 239.

RODZNIKI CHEMII. (Polska Akademia Nauk) Warszawa, Poland, Vol. 33, no. 1, 1959.

Monthly List of East European Accessions (EEAI) IC, Vol. 8, no. 9, September 1959.
Uncl.

LUKASH, A.

Tenth anniversary of the Estonian section of the All-Union
Society of Forensic Medical Personnel and Criminologists. Sud.-
med.ekspert. 5 no.3:60-61 J1-S '62. (MIRA 15:9)

1. Predsedatel' pravleniya Estonskogo otdeleniya Vsesoyuznogo
nauchnogo obshchestva sudebnykh medikov i kriminalistov.
(ESTONIA--MEDICAL JURISPRUDENCE)

LUKASH, A.A. (Tallinn)

Rare case of aspiration of large stones in drowning. Sud.-med.
ekspert. 2 no.1:51 Ja-Mr '59. (MIRA 13:4)
(DROWNING) (RESPIRATORY ORGANS--FOREIGN BODIES)

LUKASH, A.A. (Tallinn)

Injury caused by the propellers of vessels. Sud.-med. ekspert.
2 no.4:54-56 O-D '59. (MIRA 13:5)
(WOUNDS AND INJURIES)

LUKASH, A.A. (Tallin)

Rare case of injury in sports. Sud.-med. ekspert. 4 no. 1:62-63 Ja-
Mr '61. (MIRA 14:4)

(RUGBY FOOTBALL--ACCIDENTS)

LUKASH, A.A. (Tallin)

Rupture of the coronary artery in electrical injury. Sud.-med.
ekspert. 4 no.3:55-56 J1-8 '61. (MIRA 14:10)
(CORONARY VESSELS—WOUNDS AND INJURIES)
(ELECTRICITY, INJURIES FROM)

LUKASH, A.A. (Tallin)

Characteristics of injuries inflicted with wire hawsers and anchor
chains. Sud.-med. ekspert. 5 no.1:53-54 Ja-Mr '62. (MIRA 15:4)
(WOUNDS)

LUKASH, A.A.

Possibility of medicolegal examination of sweat and fat secretions
and hair on men's combs. Sud.-med. ekspert. 8 no.2:22-24 Ap-Je '65.
(MIRA 18:8)

1. Byuro glavnoy sudebnomeditsinskoy ekspertizy (nachal'nik -
A.A. Lukash) Ministerstva zdravookhraneniya Estonskoy SSR, Tallin.

LUKASH, Aleksandr Yur'yevich; SHUL'GIN, Igor' Dmitriyevich;
VORONKOVA, Irina Pavlovna.

[Calculation of circulating regulated hot-water heating
systems] Raschet protokhnno-reguliruemyykh sistem vodianogo
otopleniya. Kiev, Budivelnayk, 1965. 25 p.

(MIRA 18:8)

LUKASH, A.A.

Mechanism of closed cardiac ruptures with an uninjured thoracic skeleton. Sud.-med. eksp. 8 no.3:52-54 J1-S '65.

(MIRA 18:9)

1. Byuro glavnoy sudebnomeditsinskoy ekspertizy (nachal'nik A.A. Lukash) Ministerstva zdravookhraneniya Estonskoy SSR, Tallin.

STROGANOVA, T.P.; LUKASH, A.F.; ALFEROV, V.A.; VARGANOVA, A.N., red. izd-
va; NAZAROVA, A.S., tekhn. red.

[Catalog of flowering plants and lawn grasses grown in nurseries of
the State Trust of Landscaping and Tree Planting] Katalog tsvetoch-
nykh rastenii i gazonnykh trav, vyrashchivaemykh pitomnikami tresta
"Goszelenkhoz." Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1961. 93 p.
(MIRA 14:10)

1. Gosudarstvennyy respublikanskiy trest zelenogo khozyaystva "Gos-
zelenkhoz."

(Plants, Ornaments--Catalogs)

ACCESSION NR: AP4042801

S/0020/64/157/003/0714/0715

AUTHOR: Lukash, A. I.; Gershenovich, Z. S.

TITLE: Change in brain protein property during hyperoxia

SOURCE: AN SSSR. Doklady*, v. 157, no. 3, 1964, 714-715

TOPIC TAGS: hyperoxia, protein metabolism, brain, proteolysis

ABSTRACT: The intensity of brain proteolysis has been studied in white rats following their exposure to increased oxygen pressures. The intensity of proteolytic processes was gaged as a function of the accumulation of protein cleavage products during the incubation of brain tissue. Examinations were conducted during convulsions which developed following exposure to 6 atm of pure oxygen for 20--30 min and during torpor following exposure to 3.5 atm of oxygen for 90 min. Test results were compared with control animals. It was found that hyperoxia lowered the quantity of water-soluble proteins in the brain. During the incubation of brain tissue, the rate of proteolysis was altered, depending on the previous functional condition of the animals. Orig. art. has: 2 tables.

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ACCESSION NR: AP4042801

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet
(Rostov-on-the-Don State University)

SUBMITTED: 16Mar64

ATD PRESS: 3069

ENCL: 00

SUB CODE: LS

NO REF SOV: 004

OTHER: 002

Card 2/2

L 8250-66

ACC NR: AR5014360

SOURCE CODE: UR/0271/65/000/005/B044/B044

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 5B324

30
B

AUTHOR: Lukash, A. I.

TITLE: Adoption of an automatic check in the operation of an M-3 digital computer at the "Giprostal" Institute "

CITED SOURCE: Sb. nauchn. tr. Gos. n.-i. i proyekt. in-t metallurg. prom-sti Giprostal', vyp. 7, 1964, 119-120

TOPIC TAGS: digital computer, computer check / M-3 computer

TRANSLATION: A serial checking scheme for an M-3 digital computer is described in which the readout of the unit being checked is performed after each program operation. Such a system permits using the readout device existing in

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UDC: 681.164.66

L 8250-66

ACC NR: AR5014360

the computer, and using for checking purposes the register normally intended for reading instructions and numbers. Several alterations in the computer logic were made in order to achieve the above scheme. The check system operates between each two operations of the computer and takes the time necessary for addressing the magnetic internal storage. The time of addressing this storage is 20 microsec, while the total time of a single operation is 500 microsec. The loss of speed due to the above checking system is insignificant while the saving on the machine time by eliminating the printout check or shutdown of the computer is very essential. Fig. 1.

SUB CODE: 09

BC
Card 2/2

NEYMARK, I.Ye., PIONTKOVSKAYA, M.A., LUKASH, A.Ye., TYUTYUNNIK, R.S.

Preparation and adsorption properties of synthetic zeolite. Koll.
zhur. 22 no.2:251-253 Mr-Apr '60. (MIRA 13:8)

1. Institut fizicheskoy khimii AN USSR im. L.V. Pisarzhevskogo,
Kiyev.

(Zeolites)

NEYMARK, I.Ye.; PIONTKOVSKAYA, M.A.; LUKASH, A.Ye.; TYUTYUNNIK, R.S.

Synthesis of artificial zeolites and study of their adsorption properties [with summary in English]. Koll.zhur. 23 no.4: 454-461 J1-Ag '61. (MIRA 14:8)

1. Institut fizicheskoy khimii AN USSR im. L.V. Pisarzhevskogo. (Zeolites) (Adsorption)

LUKASH, A. Ye.

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PHASE I BOOK EXPLOITATION

SOV/6246

Soveshchaniye po tseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tseolity; polucheniye, issledovaniye i primeneniye
(Synthetic Zeolites: Production, Investigation, and Use). Mos-
cow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady)
Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh
nauk. Komisiya po tseolitam.

Resp. Eds.: M. M. Dubinin, Academician and V. V. Serpinskiy, Doctor
of Chemical Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P.
Golub'.

PURPOSE: This book is intended for scientists and engineers engaged
in the production of synthetic zeolites (molecular sieves), and
for chemists in general.

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Synthetic Zeolites: (Cont.)

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SOV/6246

COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensovet, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow in individual articles.

TABLE OF CONTENTS:

Foreword

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Dubinin, M. M. Introduction

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Synthetic Zeolites: (Cont.)

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Tsitsishvili, G. V., and G. D. Bagratishvili. IR Spectra of Water and Heavy Water Adsorbed on Zeolites

38

Shirinskaya, L. P., and N. F. Yermolenko. Applicability of the General Laws of Ion Exchange to Exchange on Synthetic Zeolite CaA

41

Neymark, I. Ye., A. I. Rastrenenko, V. P. Fedorovskaya, and A. S. Plachinda. Variation of Adsorption Properties of Zeolites as a Function of the Degree of Sodium-Ion Substitution by Other Cations

46

Neymark, I. Ye., M. A. Piontkovskaya, A. Ye. Lukash, and R. S. Tyutyunnik. Variation of the Selective Capacity of Synthetic Zeolites

49

Lulova, N. I., L. I. Piguzova, A. I. Tarasov, and A. K. Fedosova. Investigation of Synthetic Zeolites With the Aid of Gas Chromatography

59

Card 4/18 9/7

L 1589-66 ENT(m)/T

ACCESSION NR: AP5020950

UR/0073/65/031/008/0761/0767

AUTHOR: Plontkovskaya, M. A.; Neymark, I. Ye.; Tyutyunnik, R. S.;
Lukash, A. Ye.; Lantsova, M. A.

TITLE: Properties of magnesium-substituted zeolite

46
45
B

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 31, no. 8, 1965, 761-767

TOPIC TAGS: zeolite, magnesium, adsorption, nuclear magnetic resonance

ABSTRACT: The zeolite was prepared from the molecular sieve NaA or NH_4NaA and magnesium sulfate by cation exchange under static or flow conditions at 20-60 C. The exchange amounted to about 40% for NaA and 58% for NH_4NaA . For the study of properties, the following was determined: isotherms of vapor absorption (for water, benzene and lower alcohols) in the powders under vacuum at 20C, chromatographic data for the heat of adsorption (20-300C) and content in the individual gases ($\text{H}_2 + \text{CO} + \text{CH}_4$), and nuclear magnetic resonance for elucidating the nature and character of the forces linking adsorbed water molecules in the zeolite. The compositions of the elemental cells of these zeolites, $\text{Mg}^{\text{I}}\text{NaA}$, $\text{Mg}^{\text{II}}\text{NH}_4\text{NaA}$ and $\text{Mg}^{\text{III}}\text{NH}_4\text{NaA}$ are reported. Adsorption isotherms for the Mg zeolite were

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L 1589-66

ACCESSION NR: AP5020950

located above those for the Na form. Calculation of water vapor molecules per one zeolite cell gave 730 A^3 for pores in NaA and 958 A^3 for $\text{Mg}^{\text{III}}\text{NH}_4\text{NaA}$, that is, 30% more for the latter. Tests with alcohols, etc. showed that no molecules with diameters above 5 $\text{\AA}$ were adsorbed. The NMR lines for MgNaA , CaNaA and KNaA are reported. They show that the cations have an essential influence on the magnetic resonance of proton absorption, that is, that upon filling of zeolite pores with water, the latter locates mainly at the metal cations of the individual cells. This supports the assumption of cation participation in the primary adsorption act of polarized water molecules. Adsorption heat was shown to depend upon the individual gas rather than the metal. The heat of adsorption increased by about 2 kcal/mole for each CH_2 group. The nature of the cation which compensates the charge of the alumino silicate body influenced the adsorption heat of CO molecules and hydrocarbons with unsaturated bonds. Orig. art. has: 5 figures and 3 tables. ASSOCIATION: Institut fizicheskoy khimii im. L. V. Pisarzhevskogo AN UkrSSR (Institute of Physical Chemistry, AN UkrSSR)

SUBMITTED: 10Mar64

ENCL: 00

SUB CODE: IC

NR REF SOV: 008

OTHER: 001

Card 2/2

AP

LUKASH, B.; LIBIKH, Yu.

Effect of antibiotics on the resistance of white mice to experimental tularemia and on the activity of the reticuloendothelial system. Antibiotiki 9 no.7:604-609 J1 '64.

(MIRA 18:3)

1. Voenenny institut gigiyeny, epidemiologii i mikrobiologii, Praga.

LUKASH, B.; GEYZLAR, M.; LIBIKH, Ya.; GEROL'D, M.; GOFFMAN, Ya.;
MALEK, Ya.

Comparative study of the distribution of combined "antibiolymphin"
(streptomycin, neomycin) preparations and tetracycline in the
bodies of experimental animals after their parenteral administration.
Antibiotiki 7 no.3:75-79 Mr '62. (MIRA 15:3)

1. Kafedra epidemiologii Voyennogo meditsinskogo issledovatel'skogo
instituta i Instituta usovershenstvovaniya vrachey imeni I.Ye.
Purkine, Gradets Kralove i Issledovatel'skiy institut antibiotikov,
Roztoki u Pragi.

(ANTIBIOTICS)

(TETRACYCLINE)

SHAVKUNOV, A.V., inzh.; AKSENOV, N.A., inzh.; MUGORMAN, Yu. N., inzh.;
KOLCHINSKIY, V.I., inzh.; Primali uchastiye: KORNEYEVA, M.P., inzh;
CHERNOV, V.I., inzh.; MARKAROV, S.Ye., inzh.; SAYMUKOVA, Ye.P., inzh;
LUKASH, B.K., starshiy master; TITOV, S.A., svarshchik; BEREZOVSKIY, V.A.

Welding titanium alloys in chambers with a controlled atmosphere.
Svar. proizv. no.4:24-25 Ap'61. (MIRA 14:3)
(Titanium alloys- Welding) (Protective atmospheres)

LUKASH, B.S.

Materials on the phylogeny of fishes of the carp family
(Cyprinidae). Trudy Kar.fil. AN SSSR no.5:13-38 '56.
(MIRA 10:7)

1. Kirovskiy sel'skoye khozyaystvennyy institut.
(Carp) (Phylogeny)

LUKASH, F.

LUKASH, F.

Color reproduction. Sov. foto 17 no.12:47 D '57.
(Color photography)

(MIRA 11:1)

LUKASH, F.

~~Weakening the yellow layer.~~ Sov. foto 18 no.9:46 S '58.
(Color photography) (MIRA 11:10)

LUKASH, I., mekhanik

Electric signaling apparatus. Den.1 kred. 20 no.5:63-64, My '62.
(MIRA 15:5)

1. Charkasskaya oblastnaya kontora Gosbanka.
(Cherkassy Province--Banks and banking--Equipment and supplies)

LUKASH, I., [Lukas, J.], d-r, prof.; KUCHERA, E. [Kucera, E.];
DIVISH, I. [Divis, J.]

Treatment of inflammatory follicular tumors of the uterine
adnexae by means of puncture. Akush.i gin. no.1:77-82 '62.
(MIRA 15:11)

1. Iz 2-y akushersko-ginekologicheskoy kliniki (zav. - prof.
d-r I.Lukash) pri Universitete v Prage.
(UTERUS--TUMORS)

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA A new pest attacking hemp. I. I. Lukash. <i>Len i Konoplya</i> 15, No. 3, 27-8(1938); <i>Chem. Zentr.</i> 1939, I, 1838.—A preliminary report. The morphological and biol. characteristics of the larva of the syrphus fly (Syrphidae) are described. This insect attacks the hemp during retting, converting it into a towlike mass which cannot be used. Preps. recommended for combating the fly are a 0.1% soln. of formalin, $CaCl_2$, chloropicrin and anabasine sulfate. The last 2 agents gave good results although their effect on the biol. process of retting still remains a question. The use of petroleum in amts. of 0.5-1.0 l./sq. m. of surface of the retting mass appeared to give good results. M. G. Moore																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
12000 SYNDICATE										12000 SYNDICATE									
12000 SYNDICATE										12000 SYNDICATE									

Ca

THE EFFECTIVENESS OF SODIUM FLUOSILICATE AND THE ROLE OF
PLANTED BAIT IN THE CONTROL OF THE HEMP FLEA. I. I. Lukash.
Plant Protection (U. S. S. R.) 1938, No. 17, 140-8. The
method consists of planting bait hemp 30 days before mass
planting of hemp so that the bait hemp sprouts not less
than 3 weeks before the mass planting. The baits are
sprayed with Na_2SiF_6 in amts. of about 15 kg./hectare
and again after 10 days. The no. of hemp fleas decreased
80.9%.

W. R. Henn

LUKASH, I.L., kand.biol.nauk

Beet bug as a corn pest. Zashch. rast. ot vred. i bol. 3
no.4:50-51 J1-Ag '58. (MIRA 11:9)
(Corn(Maize)--Diseases and pests)

LUKASH, I.I., kand. biol. nauk

Reproductive capacity of the European corn borer. Zashch. rast.
ot vred. i bol. 4 no.1:41-42 Ja-F '59. (MIRA 12:2)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva,
Stavropol'.

(European corn borer)

LUKASH, I.I., kand.biolog.nauk; POKATAYEV, V.A., starshiy nauchnyy
sotrudnik

Ground beetle Zabrus tenebrioides is a dangerous winter wheat pest.
Zashch. rast. ot vred. 1 bol. 5 no.4:27-28 Ap '60.

(MIRA 13:9)

(Ground beetles) (Wheat—Diseases and pests)

LUKASH, I.I. (g.Prikumsk)

Control shield bugs also on threshing floors. Zashch.
rast. ot vred. i bol. 5 no. 8:19-20 Ag '60. (MIRA 13:12)

1. Stavropol'skiy Nauchno-issledovatel'skiy institut
sel'skogo khozyaystva.
(Burygasters)

Lukash, I.N.

BOGATIKOV, A.S.; LUKASH, I.N.

In drawing up plans, the experience acquired by coal preparation plants should be taken into consideration. Ugol' 32 no.5:31-32
My '57. (MLRA 10:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Ugleobogashcheniye.
(for Bogatikov). 2. Obogatitel'naya fabrika pri shakhte No. 9/15
tresta Anzherougol'. (for Lukash).
(Coal preparation)

LUKASH, I.Ye.

Device for shaking up solutions. Sakh.prom. 27 no.10:33-34 '53.

(MLRA 6:11)

1. Shpolyanskaya gruppovaya laboratoriya.

(Laboratories--Apparatus and supplies)

TVERDOKHLEB, V.I., provizor; LUKASH, L.P., provizor (Sumskaya oblast')

Considerations on education of pharmacists. Apt.delo 3 no.3:29-30
My-Je '54. (MLRA 7:6)

1. Upravlyayushchiy aptekoy No.21 (for Tverdokhlebov) 2. Upravlyayushchaya aptekoy No.79 (for Lukash)
(PHARMACY, education,
*Russia)

LUKASH, N. I.

Effect of the use of water for body conditioning on gas exchange and body and skin temperature in preschool children. Opyt izuch. reg.fiziol.funk. no.3:242-251 '54. (MIRA 8:12)

1. Otdel gigiyeny detstva Leningradskogo Gosudarstvennogo nauchno-issledovatel'skogo pediatricheskogo instituta i Laboratoriya ekologicheskoy fiziologii Instituta fiziologii imeni I.P.Pavlova Akademii nauk SSSR.

(BODY TEMPERATURE) (COLD--PHYSIOLOGICAL EFFECT) (RESPIRATION)

LUKASH, N. I.

137-58-1-2163

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 294 (USSR)

AUTHOR: Lukash, N. I.

TITLE: Gas Exchange and Skin Temperature Under Infrared and Ultraviolet Radiation (Gazoobmen i temperatura kozhi pri infrakrasnom i ul'trafioletovom obluchenii)

PERIODICAL: Tr. Yubileyn. nauchn. sessii, posvyashch. 30-letney deyat-sti Gos. n.-i. in-ta gigiyeny truda i profzabolevaniy. Leningrad, 1957, pp 66-70

ABSTRACT: An investigation of the effect of IR and UV radiation was made by the method of Douglas and Haldane. For IR irradiation, a portable ceramic 500-watt table infrared lamp was employed; for UV a "Hanovia" mercury quartz lamp producing the entire UV and visible spectrum was used. The result of IR radiation (15-20 min) in all subjects was a decrease in O₂ consumption by 53 cc, i. e., by 26 percent from the initial level. In UV irradiation, an increase in gas exchange by 32 cc was observed, representing 17 percent of the initial level.

Ye. L.

Card 1/1 1. Ultraviolet waves--Physiological effects 2. Infrared rays
--Physiological effects

LUKASH, N.I.

Leningrad. Institut radiatsionnoy gigiyeny		SOV/ALC7
Ul'traioletovaya radiatsiya i yeye gigiyenicheskiye voprosy: normy izdaniya (ul'traioletovaya radiatsiya i yeye sanitarnyye izmereniya). Collection of Transactions. Leningrad, 1959. 138 p. Karta slip inserted. 100 copies printed.		
Additional Sponsoring Agency: RSPH, Ministerstvo zdravookhraneniya.		
Ed. (title page): N. P. Galanin, Director of the Institute of Radiation Hygiene, Corresponding Member, Academy of Medical Sciences USSR, Professor; Ed. (inside book): D. N. Tyukov.		
PREFACE: This collection of articles is intended for researchers and personnel working in public health and medicine who are interested in the hygienic and therapeutic effects of ultraviolet radiation.		
CONTENTS: The purpose of the present collection is to supply material for future publications on important problems in the field. The collection includes studies on ultraviolet radiation made at the Institut radiatsionnoy gigiyeny (Institute of Radiation Hygiene) under the direction of Professor N. P. Galanin, Corresponding Member, AM USSR (Academy of Medical Sciences USSR). Throughout the text frequent reference is made to the works of Soviet contributors to the field. There is a bibliography of Soviet and non-Soviet sources at the end of every article except the tenth.		
Boiko, A. M., Candidate of Technical Sciences, and A. D. Zaytsev, Staff Member. Calibration of Instruments with Antimony-Cesium and Selenium Photoelements.	74	
Sviderskaya, T. A., Candidate of Medical Sciences. Seasonal Changes in Certain Biological Reactions in Children Under Conditions (Prevalence) in Leningrad.	82	
Sviderskaya, T. A. Artificial Ultraviolet Irradiation of Children as a Prophylactic Measure.	95	
Lukash, N. I., Candidate of Medical Sciences. Effect of Ultraviolet Irradiation on Oxidation Processes.	107	
Sviderskaya, T. A. Action of Ultraviolet Rays on the Organism as a Generally Stimulating Factor.	112	
Tyukov, D. N. Optical Properties of the Skin in Relation to Ultraviolet Rays.	125	
Sviderskaya, T. A., and I. N. Filipson, Physician. Experimental Data on the Comparative Estimation of the Biological Action of Modern Sources of Ultraviolet Radiation.	136	
Morozova, R. S., Candidate of the Medical Sciences. Effect of Bactericidal Radiation on the Virulence of Microbes.	150	
Morozova, R. S. Dynamics of Antibody Build-Up Under the Action of Bactericidal Radiation.	158	
Resistance of the Organism.	166	
Sviderskaya, T. A., Ye. O. Zhuk, Staff Member, and I. N. Filipson, Physician. Reaction of Organism to Gamma Irradiation After Preliminary Action of Ultraviolet Radiation of Various Spectral Composition.	175	
Zhuk, Ye. O., Staff Member. Difference in Biological Effect of Ultraviolet and X-Rays.	191	

DANILIN, A.A.; LUKASH, N.I.; SEREBRYANIKOV, V.D.; SHESHINA, G.A.

Results of a dynamic investigation of the peripheral blood in
subjects working under the influence of small doses of ionizing
radiations. Med. rad. 5 no.4:7-14 Ap '60. (MIRA 13:12)
(BLOOD) (RADIATION---PHYSIOLOGICAL EFFECT)

DANILIN, A.A.; LUKASH, N.I.; MALINOVSKAYA, T.Ya.; SKVIRSKAYA, K.B.;
SEREBYANNIKOV, V.D.; SHESHINA, G.A.

Condition of the nervous system in subjects working with radio-
active substances. Med.rad. 5 no.5:37-43 '60. (MIRA 13:12)
(NERVOUS SYSTEM) (RADIOACTIVITY—PHYSIOLOGICAL EFFECT)

LUKASH, N.I.

Effect of baths on basal metabolism and on seasonal changes in the
basal metabolism of preschool children. *Pediatrics* 38 no. 7:43-45
Jl '60. (MIRA 14:1)

(BASAL METABOLISM) (MAN—INFLUENCE OF CLIMATE)

LUKASH, N.I. (Leningrad, P.46, Michurinskaya ul., 9/11, kv.21)

Effect of small doses of X-ray irradiation on the development
of Ehrlich's ascitic carcinoma transplanted to rats. Vop.
onk. 8 no.9:29-32 '62. (MIRA 17:6)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta
radiatsionnoy gigieny i otdela otdalennoy luchevoy patologii
Instituta meditsinskoy radiologii Ministerstva zdoravookhraneniya
SSSR (rukovoditel' otdela - doktor biologicheskikh nauk
S.N. Aleksandrov).

IL'IN, L.A.; LUKASH, N.I.; NORETS, T.A.

Effectiveness of diethylenetriaminopentaacetic acid in internal injury by the absolute lethal dose of cerium-144. Radiobiologiya 4 no.3:435-439 '64. (MIRA 17:11)

1. Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR.

LUKASH, N.I. (Leningrad, P-46, Michurinskaya ul., 9/11, kv.21)

Effect of ionizing radiation on the transplantability and development of Ehrlich's tumor. Vop. onk. 10 no.1:11-16 '64.

(MIRA 17:11)

1. Iz Instituta radiatsionnoy gigiyeny Ministerstva zdavookhraneniya RSFSR i otdela otdalennoy luchevoj patologii Instituta meditsinskoy radiologii Ministerstva zdavoolhraneniya (rukov. - S.N. Aleksandrov).

LUKASH, N.I.

Decrease in the resistance of mice to the blastomogenic effect of urethane following whole-body gamma irradiation in small doses.

Dokl. AN SSSR 162 no.4:947-949 Je '65.

(MIRA 18:5)

1. Submitted May 13, 1964.

LUKASH, N.I.; GUBAREVA, A.V.; SHIMANOVSKAYA, K.B.

Antineoplastic resistance in animals subjected to chronic treatment
with Sr^{90} in small doses. Dokl. AN SSSR 163 no.3:747-749 J1 '65.

(MIRA 18:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy
radiologii i Nauchno-issledovatel'skiy institut radiatsionnoy gigiyeny.
Submitted June 24, 1964.

LUKASH, N. V., Candidate Med Sci (diss) -- "The internal use of sea water in certain diseases of the digestive system". Simferopol', 1959. 16 pp (Crimean State Med Inst im I. V. Stalin), 200 copies (KL, No 22, 1959, 121)

LUKASH, N.V.; KAGANOVICH, R.A. (Simferopol')

A case of subcutaneous "lymphomas" and the hematologic picture
in chronic lymphadenosis. Vrach. delo no.4:421-423 Ap '59. (MIRA 12:7)

1. Kafedra diagnostiki vnutrennikh bolezney (zav. - prof. A.B.
Shakhnazarov) Krymskogo meditsinskogo instituta i patologoanato-
micheskoye otdeleniye Pervoy gorodskoy klinicheskoy bol'nitsy.
(LYMPHATICS---DISEASES) (BLOOD--EXAMINATION)

LUKASH, N.V.

Influence of sea water following its internal use on the
biligenic and the bile secreting function of the liver. Report
No. 2. Vop. kur. fizioter. i lech. fiz. kul't. 25 no. 5:429-
431 S-0 '60. (MIRA 13:10)

1., Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof.
A.B. Shakhmurov) Krymskogo meditsinskogo instituta.

(SEA WATER--PHYSIOLOGICAL) (BILE)

KAGANOVICH, R.A.; LUKASH, N.V. (Simferopol')

Association of chronic lymphoid leukemia with bronchogenic cancer
of the lung. Vrach. delo no.8:120-122 Ag '61. (MIRA 15:3)

1. Kafedra propodevtiki vnutrennikh bolezney (zav. - prof.
A.B. Shakhnazarov) Krymskogo meditsinskogo instituta i patologoana-
tomicheskoye otdeleniya Pervoy gorodskoy bol'nitsy.

(LEUKEMIA)
(LUNGS—CANCER)

LUKASH, N.V., kand.med.nauk (Simferopol')

Significance of ballistocardiography for the diagnosis of coronary atherosclerosis without stenocardia. Vrach. delo no.4:36-38 Ap'63.
(MIRA 16:7)

1. Kafedra propedevtiki vnutrennikh bolezney (zav.--prof. A.B. Shakhnazarov) Krymskogo meditsinskogo instituta.
(BALLISTOCARDIOGRAPHY) (ARTERIOSCLEROSIS)

LUKASH, N.V.; KAGANOVICH, R.A. (Simferopol')

Effect of diseases of the liver and biliary tract on the
development of atherosclerosis. Arkh. pat. 27 no. 12:
63-65 '65. (MIRA 18:12)

1. Kafedra propedevtiki vnutrennikh bolezney (zav. - prof.
A.B. Shakhnazarov) Krymskogo meditsinskogo instituta i patolo-
goanatomicheskoye otdeleniye 1-y bol'nitsy (glavnyy vrach
A.D. Vydritskaya), Simferopol'.

LUKASH, O.I.

Pharmacy in Ternopol' Province. Parnatsev. zhuk. 18 no.4.
86-88 '63. (MIRA 1747.

1. Apteknoye upravleniye Ternopol'skogo oblasti
zdravootdela.

LUKASH, O.I.

Acquaintance with the work of some pharmacies in the Crimea.
Farmatsev.zhur. 17 no.4:64-65 '62. (MIRA 16:3)

1. Aptekoupravleniye Ternopol'skogo oblastnogo otdela zdravookhra-
neniya.

(CRIMEA—PHARMACY)

SHAGINOV, Dmitriy Luk'yanovich; LUKASH, O.Yu. [translator] .
ALEKSANDROVSKIY, A. [Oleksandrovs'kyi, O.], red.; NEMCHENKO, I.,
tekhn.red.

[Building machinery] Budivel'ni mashyny. Kyiv, Derzh.vyd-vo
lit-ry z budivnytstva i arkhitekt. URSR, 1959. 367 p. (MIRA 13:2)
(Building machinery)

LUKASH, P. A. Cand. Tech. Sci.

Dissertation: "Application of the Prof. Vlasov's Theory for Investigating the Spatial Stability of the Compressed Belts of an Open Girder Bridge." Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev, 8 Dec 47.

SO: Vechernyaya Moskva, Dec, 1947 (Project #17836)

LUKASH, P.A., dots., kand.tekhn.nauk

Stability of orthotropic cylindrical shells. Nauch.dokl.vys.
shkoly; stroi. no.2:5-12 '58. (MIRA 12:1)
(Elastic plates and shells)

LUKASH, P.A. (Moskva); LEONT'YEV, N.N. (Moskva)

Calculation of a spherical rigidly-supported shell. Inzh. sbor.
25:154-163 '59. (MIRA 13:2)
(Elastic plates and shells)

LUKAS, P.A.

Report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '66.

168. A. D. Leites (Dnepropetrovsk): On space buckling of columns in the elastoplastic range.
169. V. A. Lomskiy (Moscow): Viscous creep at room temperature.
170. V. A. Lomskiy (Moscow): Elasticity of metals under combined loading.
171. A. I. Lomov (Moscow): Some problems of non-stationary flow of an incompressible visco-elastic (Maxwellian) liquid.
172. A. I. Lomov, N. D. Rudkov (Moscow): Some problems of quasi-steady flow of an incompressible visco-elastic (Maxwellian) liquid.
173. N. A. Lomov (Leningrad): The generalization of the torsion theory of thin-walled bars.
174. N. A. Lomov, V. V. Pashchuk (Leningrad): The development of dislocations.
175. N. A. Lomov (Leningrad): Plastic flow of circular plates under tension and bending of compression and bending.
176. A. O. Lomovskiy (Dnepropetrovsk): Torsion of an anisotropic bar.
177. A. D. Lomov (Dnepropetrovsk): Free vibrations and stability of stationary and prestressed elastic reinforced beams.
178. A. Lomovskiy (Leningrad): Displacement of rods due to movement of sliding layers.
179. A. V. Litvinov (Leningrad): On the application of matrix methods to the solution of drift rate of fluid equations of elasticity theory.
180. O. I. Lottin (Gosplan): The solution of σ - ϵ linear parameters for structures of equal stability consisting of plates and structures.
181. A. A. Lur'ya (Moscow): Large deflections of shallow shells of anisotropic elastic materials.
182. A. A. Lur'ya (Moscow): Methods for the solution of the problem of anisotropic states of stress in shells of revolution.
183. A. A. Lur'ya (Moscow): Analysis of an anisotropic elastic material under an arbitrary load applied to a ring.
184. A. V. Lyubchikov (Leningrad): On the experimental study of strains in plates and shells.
185. E. I. Malinin (Sverdlovsk): Creep strains and ruptures of high polymers.
186. E. I. Malinin (Sverdlovsk): Vibrations of non circular cylindrical shells.
187. A. E. Malinin (Sverdlovsk): Some problems of combined loading of non-isotropic bodies.
188. E. A. Malinin (Sverdlovsk): The influence of structural discontinuity in concrete on its strength.
189. A. O. Mamonov (Leningrad): Investigation of the state of stress in a square prism with conical cylindrical hole under internal pressure.
190. G. F. Mandelstam (Tbilisi): Solving the plane elastic problem for anisotropic bodies by the method of the problem of plane bending with displacement.
191. E. I. Marichev, N. A. Mikhlin (Dnepropetrovsk): The stability of cylindrical shell in bending.
192. V. A. Matrosov (Moscow): Stress and strains in naturally twisted bars.
193. V. I. Matrosov (Sverdlovsk): The problem of conformal transformation and plane elasticity for the exterior of an infinite number of holes.
194. A. A. Mikhlin (Moscow): The design of finite and infinite beams on elastic foundation including linear stresses and without adopting the hypothesis of constant and variable.
195. A. A. Mikhlin (Moscow): The design of finite and infinite beams on elastic foundation including linear stresses and without adopting the hypothesis of constant and variable.
196. A. A. Mikhlin (Moscow): An experimental study of basic creep laws for soils.
197. G. A. Mikhlin (Sverdlovsk): On statically equivalent loadings.
198. A. A. Mikhlin (Tbilisi): Contribution to the theory of plastic shells of anisotropic bodies.
199. A. A. Mikhlin (Leningrad): On the bending of a simply supported rectangular plate.
200. A. V. Mikhlin (Moscow): Analysis of the rheological properties of anisotropic materials in homogeneous plasticity under constant shearing stress.

LUKASH, P.A.

PHASE I BOOK EXPLOITATION SOV/5422

Kuz'min, Nikolay Leonidovich, Candidate of Technical Sciences, Peter Andreyevich Lukash, Candidate of Technical Sciences, and Iosif Yefimovich Mileykovskiy, Candidate of Technical Sciences.

Raschet konstruktsiy iz tonkostennykh sterzhney i obolochek (Construction Designs From Thin-Walled Shafts and Casings) Moscow, Gosstroyizdat, 1960. 260 p.
Errata slip inserted. 7,000 copies printed.

Scientific Ed.: N.N. Leont'yev, Candidate of Technical Sciences; Ed. of Publishing House: N.M. Khalafyants; Tech. Ed.: Ye. K. Garnukhin.

PURPOSE: This book is intended for construction engineers, project planners and designers, students and aspirants at construction schools of higher education.

COVERAGE: The book discusses problems dealing with the strength, stability, and vibration of thin-walled bars and shells. The theory of thin-walled bars and the variation method established by B.Z. Vlasov are described. Particular attention is given to practical computations methods, and numerous examples are given. Ch. 1 was written by N.L. Kuz'min, Ch. 2 by P.A. Lukash, Ch. 3 by I.Ye. Mileykovskiy. No personalities are mentioned. There are 8 references, all Soviet.
Card 1/5

LUKASH, P.A., kand.tekhn.nauk

Design of shallow shells and plates considering the physical
and geometrical nonlinearity. Trudy TSNIISK no.7:268-320
'61. (MIRA 15:3)

(Elastic plates and shells)

ACCESSION NR: AT4011452

S/3065/63/000/044/0007/0024

AUTHOR: Lukash, P. A.

TITLE: Torsion and deflection centers of thin-walled rods made of materials with non-linear elasticity

SOURCE: Moscow, Inzhenerno-stroitel'nyy institut. (Trudy*), no. 44, 1963. Sterzhni i plastinki, 7-24

TOPIC TAGS: Betti theorem, elasticity, non-linear elasticity, deflection center, torsion center, deflection center calculation, torsion center calculation, cantilever calculation, deflection-torsion center coincidence

ABSTRACT: The article offers a detailed mathematical analysis of the relative positions of centers of torsion and deflection for a cantilever supported at one end (see Fig. 1 in the Enclosure) and made of materials with non-linear elasticity. Betti's theorem does not apply for such materials and the two named centers are not coincident. The author postulates a non-linear relationship between stresses and deformations in the form of a polynomial:

$$\sigma = \sum_{l=1}^{l=n} A_l \varepsilon_l^{k_l} \quad (1)$$

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where

σ is the stress

ϵ is the deformation (elongation or compression)

A_1 represents certain constants with stress dimensions

k_1 represents non-dimensional rate indicators in the form of any material figures (fractions, whole numbers, positive but not negative).

The location of the center of deflection is then determined from the following condition:
 "...if a force is applied to the center of deflection, then the system of normal stresses σ arising in a rod is reduced to the bimoment $B=0$ ":

$$B = \int_F \sigma \omega_i dF = 0.$$

(2)

where ω_i is the sectorial coordinate of an arbitrary crosssection point, determined relative to a pole in the center of deflection.

The location of the center of torsion is then determined from the following condition:

"...if only a single torque acts on a rod, then the system of normal stresses arising is reduced to deflection moments equal to zero":

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$$M_x = \int_F \sigma y dF = 0; \quad (3)$$

$$M_y = \int_F \sigma x dF = 0.$$

where x and y are coordinates of an arbitrary crosssection point; the crosssection must be related to the principal central axes of inertia. Deformation is determined for deflection from the principle of plane crosssections:

$$\epsilon_1 = \frac{y}{\rho_1} \cong y w_x''; \quad \epsilon_2 = \frac{x}{\rho_2} \cong x w_y'', \quad (4)$$

where ϵ_1 and ϵ_2 are deformations

ρ_1 and ρ_2 are the corresponding curvature radii

w_x and w_y are deflections in the direction of axes x and y , respectively;

or for limited torsion from the principle of sectorial areas:

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$$e_u = -\omega_k \theta''.$$

(5)

where ω_k is a sectorial coordinate with a pole in the center of torsion, and θ is the angle of twist.

One thus obtains equations for determining the coordinates of the center of deflection:

$$\sum_{i=1}^{l-n} \frac{A_i}{\rho_1^{\kappa_i}} \int_F y^{\kappa_i \omega_n} dF = 0;$$

(6)

$$\sum_{i=1}^{l-n} \frac{A_i}{\rho_2^{\kappa_i}} \int_F x^{\kappa_i \omega_n} dF = 0$$

and of the center of torsion:

$$\sum_{i=1}^{l-n} A_i (\omega_x'')^{\kappa_i} \int_F y^{\kappa_i \omega_n} dF = 0;$$

(7)

$$\sum_{i=1}^{l-n} A_i (\omega_y'')^{\kappa_i} \int_F x^{\kappa_i \omega_n} dF = 0.$$

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